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MINERALS PROGRAM
FILE COPY

November 8, 1989

TO: Minerals File

FROM: Holland Shepherd, Reclamation Specialist *HWS*

RE: Field Visit, Cactus Rat Mine, Atlas Minerals, M/019/009,
Grand County, Utah

On August 8, 1989, I visited the Cactus Rat mine site. I was accompanied by Mr. Sal Venticinque of the Grand Resource Area Office and Mr. Carl Dixon of Atlas Minerals. The visit was conducted to evaluate the reclamation success at this mine site. Reclamation had been conducted during the spring of 1988, and the operator was interested in having the Division evaluate the reclamation success at this point in time.

The site has been regraded and reseeded, several adits or declines have been covered up and regraded; all of the facilities, debris, old machinery and buildings have been removed except for one, a very old miners shack or office, which was left by the operator for historical value.

The majority of the site, according to Carl Dixon, is pre-law. The operator has reclaimed the entire 17 acre site the same, even though the majority is pre-law. According to Carl, doing the pre-law portion was a good faith act on the part of the operator. The post-law portion that the operator reclaimed composes about 25% of the total, which is about 2 - 3 acres. Even though much of the site was pre-law, the original Board Contract commits the operator to reclaim the entire 17 acres.

Unfortunately, very few seeded species were found growing at the site. Portions of the reclaimed area have been invaded by weeds, mostly Koshia and Russian Thistle. However, the majority of the reclaimed area, post-law and pre-law is not supporting vegetation at this time. Some very few species of Crested Wheatgrass, Galleta Grass and Indian Rice Grass were found growing on the reclaimed portions of the site. The reason for such poor success is no doubt a result of a very dry growing season this past year. The seeds had been broadcast onto the site and scarified in by the operator instead of drill seeded. Drill seeding may have worked better on this site, due to the harsh, dry conditions encountered later on in the season.

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Other problems at the site have to do with subsidence. Some sink holes have developed around old mine workings and declines that were covered by the regrading portion of the reclamation last year. The sink holes were a result of water infiltration, water finding a weak point in the fill material and then developing, after several storms, large sink holes which work their way down into the workings of the mine. These sink holes are very dangerous for livestock, or people who might be in the area. Mr. Dixon indicated that he would have the sink holes fixed, as soon as possible, on both the pre-law and the post-law portions of the site.

I asked that Mr. Dixon reseed at least those areas of the site that were post-law, or under the requirements of the Division to conduct reclamation. I indicated that I would provide for him, a new seed list to use at the site, composed of species that would be adaptable to the current dry, droughty conditions. I also indicated to Mr. Dixon that provided the reseeding was done again properly, the Division would not ask Atlas to perform any further reclamation at this site and could release them from their reclamation obligation. Further research at the office, indicates that Atlas has committed to reclaiming the entire site, post or pre-law. We will ask that the entire 17 acres be reseeded.

Apparently, another problem with plant or seed germination at this site, is that the soils have a high clay content, and when dried out, effectively seals up the surface; the surface hardens quite substantially and prevents invasion from adjacent seed sources. The poor soil quality also prevents water moisture from getting to the seed because of the excessively dry summer this past year. Essentially, soils in the area have acted to prevent seed germination from seed provided by the operator and natural seed from adjacent plant sources.

Mr. Venticynque, of the BLM, indicated that he was happy with the reclamation performed at the site and was concerned only with the subsidence of the sink holes. He would, however, recommend, that the operator reseed portions of the site and would also have his plant specialist recommend a viable seed mixture for the site. Mr. Venticynque indicated to me, that the BLM had no Plan of Operation or Notice of Intent on this particular site and he was unaware of the operation until I had called previously and told him about it. Apparently, the BLM hasn't been keeping up on their paper work on this site, or has lost the information on this site, and no doubt several others in the area.

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I need to call up Mr. Joe D. Biershied, who conducted the reclamation at this site to get a understanding of the seed mix he used at the site. Apparently, there is conflicting information in the file as to what kind of seed mix was used for this site reclamation.

jb
cc: Lowell Braxton
Wayne Hedberg
MN4/186-188